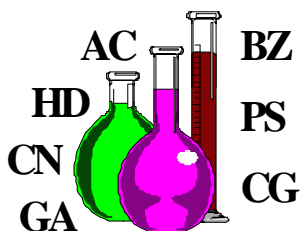


U.S. Army Center for Health Promotion and Preventive Medicine



General Facts About Nerve Agent GA

218-26-1096

General

G-type nerve agents are considered to be nonpersistent chemical agents that may present a significant vapor hazard to the respiratory tract, eyes, or skin. GA-type nerve agents affect the body by blocking the action of the enzyme acetylcholinesterase. When this enzyme is blocked, large amounts of the chemical acetylcholine build up at critical places within the nervous system, causing hyperactivity of the muscles and body organs stimulated by these nerves. The signs and symptoms of exposure to GA-type nerve agents depend upon the *route of exposure* and the *amount of exposure*.

Synonyms

Ethyl dimethylphosphoramidocyanidate;
Dimethylaminoethoxy-cyanophosphine oxide;
Dimethylamidoethoxyphosphoryl cyanide;
Ethyldimethylaminocyanophosphonate;
Ethyl ester of dimethylphosphoroamidocyanidic acid;
Ethylphosphorodimethylaminodcyanidate;
GA;
EA1205;
Tabun.

Description

G-type nerve agents are clear, colorless, and tasteless liquids, chemically similar to organophosphate pesticides such as Malathion or Parathion. GA has a slightly fruity odor.

Overexposure Effects

Signs and symptoms are the same regardless of route the poison enters the body (by inhalation, absorption, or ingestion): runny nose; tightness of chest; dimness of vision and miosis (pinpointing of the eye pupils); difficulty in breathing; drooling and excessive sweating; nausea; vomiting; cramps, and involuntary defecation and urination; twitching, jerking, and staggering; and headache,

confusion, drowsiness, coma, and convulsion. These signs and symptoms are followed by cessation of breathing and death.

Emergency and First Aid Procedures

Inhalation: hold breath and don respiratory protection mask; if severe signs of agent exposure appear, administer immediately, in rapid succession, all three Nerve Agent Antidote Kits, Mark I injectors; use mouth-to-mouth resuscitation when approved mask-bag or oxygen delivery systems are not available; do not use mouth-to-mouth resuscitation when facial contamination exists; administer oxygen if breathing is difficult; seek medical attention immediately.

Eye Contact: flush eyes immediately with water for 10-15 minutes then don a respiratory protective mask. Although miosis may be an early sign of agent exposure, do not administer an injection when miosis is the only sign present; seek medical attention immediately.

Skin Contact: don respiratory mask and remove contaminated clothing; wash contaminated skin with copious amounts of soap and water immediately using 10 percent sodium carbonate solution, or 5 percent liquid household bleach; rinse well with water to remove decontamination; if local sweating and muscular symptoms occur, administer an intramuscular injection with the MARK I Kit; seek medical attention immediately.

Ingestion: do not induce vomiting; first symptoms are likely to be gastrointestinal; administer immediately 2 milligrams (mg) intramuscular injection of the MARK I kit auto injectors; seek medical attention immediately.

Storage of GA

Nerve agent GA can be found in ton containers (heavy steel cylinders), artillery shells, mortar projectiles, rockets, and land mines.

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